

Amendments to the Specification:

[0035] FIG. 7 shows an arrangement of nine detector elements in a 3 x 3 configuration. Instead of using dentations, the interlocking is achieved by means of interleaved sensitive surfaces. For the sake of clarity the various sensitive parts of the surface which belong to the central detector element are denoted by shading. As for the dentated detector elements, sampling at the area of the neighboring detector element is achieved by interleaving of the sensitive surfaces. It is to be understood that the connection between the sensitive parts of the surface associated with one detector element is realized, for example, in deeper metal layers. Such a connection V1 of the surface parts which are not coherent on the surface is shown in dashed form, by way of example, for the sensitive surface parts D1.1 and D1.3. The interleaving is achieved in that the sensitive surfaces comprise free areas 720 in which sensitive surface parts 710 of neighboring detector elements are realized. Adjacent the large sensitive surface part D1.1 of the central detector element in this embodiment there are situated further sensitive surfaces D1.2, D1.3 which belong to this detector element and are realized in corresponding free areas of the sensitive surfaces D2.1 of neighboring detector elements. Analogously, the sensitive surface part D1.1 of the central detector element includes free areas in which sensitive surface parts D2.2 of neighboring detector elements are realized. As opposed to the meshing by way of teeth, a signal can thus be extracted from the next detector element but one because at that location there is a free area in which a sensitive surface part is realized which is connected to the corresponding next neighbor but one. As shown in Fig. 7, there is overlap between each of the sensitive areas to allow the sensitive surface parts 720 to be positioned in the free areas 710. In this example of engagement it is again impossible to realize a gap-free subdivision of the detector surface into convex envelopes which enclose each time only all sensitive surface parts of a detector element.